REMARKS

Claims 1 and 3-29 are pending in the present Application; claim 14 has been canceled, claim 1 has been amended, and claim 30 has been added, leaving claims 1, 3-13, and 15-30 for consideration upon entry of this Amendment. Reconsideration and allowance of the claims are respectfully requested in view of the following remarks.

Claim Amendment

Claim 1 has been amended to contain the limitation "wherein the melt has a residence time in the extruder of less than or equal to about 1 minute." Support for the limitation can be found in claim 14 as originally filed.

Claim Rejections Under 35 U.S.C. § 103(a)

Claims 1, 3-29 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over US 6,015,512 to Yang et al. Applicants respectfully traverse this rejection.

US 6,015,512 (hereinafter referred to as Yang et al.) generally discloses an extrusion-compression molding process for making ophthalmic lenses from polymeric material.

For an obviousness rejection to be proper, the Examiner must meet the burden of establishing a *prima facie* case of obviousness, i.e., that all elements of the invention are disclosed in the prior art; and that the prior art relied upon, coupled with knowledge generally available in the art at the time of the invention, contain some suggestion or incentive that would have motivated the skilled artisan to modify a reference or combined references. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988); *In Re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970); *Amgen v. Chugai Pharmaceuticals Co.*, 927 U.S.P.Q.2d, 1016, 1023 (Fed. Cir. 1996).

Independent claims 1, 26, and 27 are each directed to a method of purifying a polymeric material by melt filtering a melt of poly(arylene ether) and poly(alkenyl aromatic). In each claim, the filtered polymeric material is substantially free of visible particulate impurities.

Applicants can find no statement in Yang et al. in which they teach or suggest melt filtering a melt of poly(arylene ether) and poly(alkenyl aromatic) to provide a filtered polymeric material that is substantially free of visible particulate impurities. The Office Action does not provide any evidentiary support that the art knew to melt filter a poly(arylene ether) and poly(alkenyl aromatic)

melt blend to produce filtered polymeric material substantially free of visible particulate impurities. Accordingly, the reference fails to render the independent claims obvious as each and every element of the claims is not taught or suggested by the reference or by common knowledge in the art. As claims 3-13, 15-25, and 28-29 all ultimately depend from claim 1, they too are not rendered obvious. Applicants therefore request reconsideration and withdrawal of the rejection of claims 1, 3-13 and 15-29 under 35 USC §103(a) over Yang et al.

Additionally, claim 26 requires melt blending about 60 to about 30 weight percent of poly(phenylene ether) and about 40 to about 70 weight percent of polystyrene. The cited reference does not teach or suggest melt blending about 60 to about 30 weight percent of poly(phenylene ether) and about 40 to about 70 weight percent of polystyrene. Accordingly, the cited reference does not render claim 26 obvious and Applicants respectfully request reconsideration and removal of the rejection of claim 26 under 35 USC §103(a) over Yang et al.

Finally, claim 27 requires melt blending poly(arylene ether) and poly(alkenyl aromatic) in a twin screw extruder to form a melt, wherein the extruder has a specific throughput rate of about 0.5 kg/cm^3 to about 8 kg/cm^3. The cited reference fails to teach or suggest melt blending poly(arylene ether) and poly(alkenyl aromatic) in a twin screw extruder to form a melt that is subsequently melt filtered to a particular level of impurities, wherein the extruder has a specific throughput rate of about 0.5 kg/cm^3 to about 8 kg/cm^3, and therefore fails to teach or suggest the particular combination of elements required by independent claim 27. Accordingly, the Applicants respectfully request reconsideration and removal of the rejection of claim 27 under 35 USC §103(a) over Yang et al.

Claim Rejections Under 35 U.S.C. § 102

Claims 1 and 3-19 stand rejected under 35 U.S.C. § 102(a, b, or e), as allegedly anticipated by US patent 3,457,343; JP 632564427; or JP63091231. Applicants respectfully traverse this rejection.

US3457343 is generally directed to a process for wet spinning threads comprising extruding a solution of poly-2,6-disubstituted paraphenylene ethers in an aliphatic halohydrocarbon solvent through a spinneret into a coagulation bath.

JP63256427 is generally directed to a resin composition of an aromatic vinyl monomer and a polyphenylene ether in a solution from which foreign fine particles, 1 micron or larger, are

filtered prior to extrusion. A translation of JP63256427 was provided to the PTO in November of 2003.

JP63091231 is generally directed to a resin composition of an aromatic vinyl monomer and a polyphenylene ether dissolved in an organic solvent from which foreign fine particles, 1 micron or larger, are filtered such that at most 10,000 pieces/gram are left in the resin composition. A translation of JP63091231 was also provided to the PTO in November of 2003.

To anticipate a claim under 35 U.S.C. § 102, a single source must contain all of the elements of the claim. *Lewmar Marine Inc. v. Barient, Inc.*, 827 F.2d 744, 747, 3 U.S.P.Q.2d 1766, 1768 (Fed. Cir. 1987), *cert. denied*, 484 U.S. 1007 (1988).

US3457343 discloses filtration of a *solution* of poly-2,6-disubstituted paraphenylene ethers in an aliphatic halohydrocarbon solvent *prior* to extrusion of the polymer solution through a spinneret (see examples 12-18). JP632564 discloses filtration of a *solution* of resin composition of an aromatic vinyl monomer and a polyphenylene ether *prior* to extrusion of the polymer solution. Neither of these cited references teach or suggest melt filtering a melt of poly(arylene ether) and poly(alkenyl aromatic) formed by melt-blending in an extruder to provide a filtered polymeric material that is substantially free of visible particulate impurities. Therefore neither reference anticipates claim 1. As claims 3-19 all ultimately depend from claim 1, they too are not anticipated by either of these references.

JP63091231 discloses a solution of a resin composition of an aromatic vinyl monomer and a polyphenylene ether dissolved in an organic solvent from which foreign fine particles are removed by filtration of the solution or of the molten resin. JP63091231 however does not disclose that the residence time of the melt in the extruder is less than or equal to about 1 minute, as is required by independent claim 1. Limiting the residence time of poly(arylene ether) material in the extruder is important to reduce the heat history of the material. Indeed, a short residence time minimizes the decomposition of the polymeric material, especially the poly(arylene ether) component, and thereby reduces the possibility of the formation of gels or black specks in the polymeric material. (See paragraph [00013] of the Specification as filed). By minimizing the residence time of the melt by choice of extruder screw design and by controlling the screw speed and feed rate, fewer gels and specks may form resulting in a cleaner polymeric material. JP63091231 does not teach or suggest the

importance of melt residence time in the extruder. Accordingly, as each and every element of claim 1 is not taught by the reference, JP63091231 fails to anticipate the independent claim. Further, as claims 3-19 all ultimately depend from claim 1, they too are not anticipated by JP63091231.

Applicants respectfully request reconsideration and removal of the § 102(a, b or e) rejections.

Double Patenting

Claims 1 and 3-29 have been provisionally rejected under the judicially created doctrine of obviousness-type double patenting as allegedly unpatentable over claims 1-45 of copending Application No. 10/648,609 ("the '609 application"). Applicants thank the Examiner for pointing out the alleged, potential obviousness-type double patenting issues between the claims of the present application and those of the '609 application. However, as there are no allowed claims in the '609 application at this time, the Applicants respectfully request withdrawal of the provisional rejection.

Claims 1 and 3-29 have been provisionally rejected under the judicially created doctrine of obviousness-type double patenting as allegedly unpatentable over claims 1-12 of copending Application No. 10/648,647 ("the '647 application"). Applicants respectfully traverse this rejection.

The '647 application and the instant application are directed to different subject matter. The '647 application is directed to a method of preparing a polymeric material by filtering solutions of poly(arylene ether), poly(alkenyl aromatic), and a solvent through one or more filtration systems to provide a material having reduced levels of particulate impurities. The '647 application, however, does not involve a melt filtration process of filtering a polymer melt.

On the other hand, the instant application is directed to a method of purifying a polymeric material by melt blending poly(arylene ether) and poly(alkenyl aromatic) in an extruder to form a melt and melt filtering the melt through a filtration system to produce a filtered polymeric material. Unlike the '647 application, the instant application involves melt blending and melt filtering, but does not involve filtering a polymer mixture solution. Accordingly, the Applicants respectfully request reconsideration and removal of the provisional double patenting rejection.

Claims 1 and 3-29 have been provisionally rejected under the judicially created doctrine of obviousness-type double patenting as allegedly unpatentable over claim 1 of copending Application

No. 10/648,640 ("the '640 application"). Claims 1 and 3-29 were also provisionally rejected under the judicially created doctrine of obviousness-type double patenting as allegedly unpatentable over claim 1 of the '640 application in the previous Office Action, dated October 20, 2005. With the response to that Office Action which was filed on November 10, 2005, Applicants submitted a terminal disclaimer to overcome this double patenting rejection over the '640 application claims. The image file wrapper of the instant application in PAIR shows receipt of the terminal disclaimer and its filing fee on November 10, 2005. As a terminal disclaimer was filed previously, Applicants again respectfully request withdrawal of the provisional obviousness-type double patenting rejection of claims 1 and 3-29 over claim 1 of the '640 application.

Claims 1 and 3-29 have been provisionally rejected under the judicially created doctrine of obviousness-type double patenting as allegedly unpatentable over claims 3-49 of copending Application No. 10/922,194 ("the '194 application"). Applicants thank the Examiner for pointing out the alleged, potential obviousness-type double patenting issues between the claims of the present application and those of '194 application. However, as there are no allowed claims in the '194 application, the Applicants respectfully request withdrawal of the provisional rejection at this time.

New Claim

New claim 30 has been added. Support for the new claim can be found in the claims as originally filed and paragraph [0027] of the application as originally filed.

Conclusion

It is believed that the foregoing remarks fully comply with the Office Action and that the claims herein should now be allowable to Applicants. Accordingly, reconsideration and allowance are respectfully requested.

If there are any additional charges with respect to this Response or otherwise, please charge them to Deposit Account No.50-1131.

Respectfully submitted,

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